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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Anil Vasudevan

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EXAMINER

MCLEOD, MARSHALL M

ART UNIT

PAPER NUMBER

2457

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/815,895	Applicant(s) VASUDEVAN ET AL.	
	Examiner MARSHALL MCLEOD	Art Unit 2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7-11,13-15,17,18,20-22 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7-11,13-15,17,18,20-22 and 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 0 October 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/27/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1, 3, 4, 7-11, 13-15, 17, 18, 20-22 and 24-26 are pending in this application.

Claims 2, 6, 12, 16 19 and 23 have been cancelled without prejudice. The examiner also withdraws the claim objections to claims 4 and 5 in light of applicant's recent amendments.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 7-11, 14-15, 18 and 24-26 are rejected as being unpatentable over Hendel et al. (Pub. No US 2004/0013117 A1), hereinafter Hendel in view of Pettey (Pub. No US 2003/0014544 A1).

6. With respect to claim 1, Hendel discloses,

- a. receiving an indication on a network component that one or more packets have been received from a network (Page 2, [0025], lines 3-4; i.e. "NIC card receives packets from a network");
- b. splitting each of the one or more packets into a header and a payload (Page 2, [0025], lines 4-5); and posting each of the header and payload to one or more post buffers (Page 2, [0025], lines 4-8), using the network component;
- c. notifying a TCP (transport control protocol) driver, by the network component that the one or more packets have arrived (Page 2, [0025], lines 7-8; i.e. "forward the headers to a host for protocol processing.");
- d. performing, using the TCP driver, TCP stack processing by parsing the header in at least one of the one or more packets to determine the context associated with a current connection, and performing, using the TCP driver, TCP protocol compliance for the at least one of the one or more packets (Page 2, [0025], lines 7-8; i.e. "forward the headers to a host for protocol processing."); and performing one or more operations, using the TCP driver, that result in a data movement module in a data movement module retrieving one or more payloads of the at least one of the one or more packets from an associated post buffer and placing the one or more corresponding payloads placing the one or more

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corresponding payloads into a read buffer (Page 3, [0035], lines 8-10; Page 5, [0072], lines 1-3; Page 6, [0091], lines 1-10) wherein the data movement module comprises a DMA (direct memory access) engine.

Hendel does not disclose a “TCP-A (transport control protocol - accelerated) driver”; a chipset having a DMA (direct memory access) engine, the chipset communicatively coupled to a TCP-A (Transport Control Protocol - Accelerated).

However, Pettey discloses a “TCP-A (transport control protocol - accelerated) driver” (Page 10, [0089], lines 1-9; i.e. ... “a connection acceleration driver that is connected to a server's TCP/IP stack”); and a chipset having a DMA (direct memory access) engine, the chipset communicatively coupled to a TCP-A (Transport Control Protocol - Accelerated) (Page 10, [0089], lines 1-9; i.e. ... “a connection acceleration driver that is connected to a server's TCP/IP stack”) driver of a processor and to a network component (Page 2, [0016], lines 9-14).

It would have been obvious to a person skilled in the art at the time of the invention to modify the teachings of Hendel with the teachings of Pettey in order to manage the receipt of communication traffic from a network or other link by implementing TCP/IP-related processing functions normally attributed to a server, such as accelerating connections to reduce packet processing time through the use of DMA by freeing up system resources.

7. With respect to claim 10, Hendel discloses,

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- a. A network component configured to (Page 2, [0025], lines 3-4; i.e. “NIC card”):
- b. receive an indication that one or more packets have been received from a network (Page 2, [0025], lines 3-4; i.e. “NIC card receives packets from a network”);
- c. split each of the one or more packets into a header and a payload (Page 2, [0025], lines 4-5); and posting each of the header and payload to one or more post buffers (Page 2, [0025], lines 4-8); and
- d. notify a TCP (transport control protocol) driver that the one or more packets have arrived (Page 2, [0025], lines 7-8; i.e. “forward the headers to a host for protocol processing.”);
- e. the TCP driver configured to: perform packet processing by parsing the header in at least one of the one or more packets to determine the context associated with a current connection, and perform TCP protocol compliance for the at least one of the one or more packets (Page 2, [0025], lines 7-8; i.e. “forward the headers to a host for protocol processing.”); and perform one or more operations that result in a data movement module retrieving that result in a data movement module in a data movement module retrieving one or more payloads of the at least one of the one or more packets from an associated post buffer and placing the one or more corresponding payloads placing the one or more corresponding payloads into a read buffer (Page 3, [0035], lines 8-10; Page 5, [0072], lines 1-3; Page 6, [0091], lines 1-10).

Hendel does not disclose a “TCP-A (transport control protocol - accelerated) driver”.

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However, Pettey discloses a “TCP-A (transport control protocol - accelerated) driver” (Page 10, [0089], lines 1-9; i.e. ... “a connection acceleration driver that is connected to a server's TCP/IP stack”).

It would have been obvious to a person skilled in the art at the time of the invention to modify the teachings of Hendel with the teachings of Pettey in order to manage the receipt of communication traffic from a network or other link by implementing TCP/IP-related processing functions normally attributed to a server, such as accelerating connections to reduce packet processing time through the use of DMA by freeing up system resources.

8. With respect to claim 14, Hendel discloses,
 - a. A network component configured to (Page 2, [0025], lines 3-4; i.e. “NIC card”);
 - b. receive an indication on a network component that one or more packets have been received from a network (Page 2, [0025], lines 3-4; i.e. “NIC card receives packets from a network”);
 - c. split each of the one or more packets into a header and a payload (Page 2, [0025], lines 4-5); and posting each of the header and payload to one or more post buffers (Page 2, [0025], lines 4-8); and
 - d. notify a TCP (transport control protocol) driver that the one or more packets have arrived (Page 2, [0025], lines 7-8; i.e. “forward the headers to a host for protocol processing.”);

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- e. a TCP driver configured to: perform packet processing by parsing the header in at least one of the one or more packets to determine the context associated with a current connection, and perform TCP protocol compliance for the at least one of the one or more packets (Page 2, [0025], lines 7-8; i.e. “forward the headers to a host for protocol processing.”); and
- f. perform one or more operations that result in a data movement module retrieving that result in a data movement module in a data movement module retrieving one or more payloads of the at least one of the one or more packets from an associated post buffer and placing the one or more corresponding payloads placing the one or more corresponding payloads into a read buffer (Page 3, [0035], lines 8-10; Page 5, [0072], lines 1-3; Page 6, [0091], lines 1-10).

Hendel does not disclose a “TCP-A (transport control protocol - accelerated) driver”; a chipset having a DMA (direct memory access) engine, the chipset communicatively coupled to a TCP-A (Transport Control Protocol - Accelerated).

However, Pettey discloses a “TCP-A (transport control protocol - accelerated) driver” (Page 10, [0089], lines 1-9; i.e. ... “a connection acceleration driver that is connected to a server's TCP/IP stack”); and a chipset having a DMA (direct memory access) engine, the chipset communicatively coupled to a TCP-A (Transport Control Protocol - Accelerated) (Page 10, [0089], lines 1-9; i.e. ... “a connection acceleration driver that is connected to a server's TCP/IP stack”) driver of a processor and to a network component (Page 2, [0016], lines 9-14).

It would have been obvious to a person skilled in the art at the time of the invention to modify the teachings of Hendel with the teachings of Pettay in order to manage the receipt of communication traffic from a network or other link by implementing TCP/IP-related processing functions normally attributed to a server, such as accelerating connections to reduce packet processing time through the use of DMA by freeing up system resources.

9. With respect to claim 18, Hendel discloses,
 - a. A machine-readable medium having stored thereon instructions (Claim 30, i.e. a computer readable storage medium storing instructions),
 - b. receiving an indication on a network component that one or more packets have been received from a network (Page 2, [0025], lines 3-4; i.e. "NIC card receives packets from a network");
 - c. the network component splitting each of the one or more packets into a header and a payload (Page 2, [0025], lines 4-5); and posting each of the header and payload to one or more post buffers (Page 2, [0025], lines 4-8);
 - d. the network component notifying a TCP (transport control protocol) driver that the one or more packets have arrived (Page 2, [0025], lines 7-8; i.e. "forward the headers to a host for protocol processing.");
 - e. the TCP driver performing packet processing by parsing the header in at least one of the one or more packets to determine the context associated with a current connection, and perform TCP protocol compliance for the at least one of the one or more packets

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(Page 2, [0025], lines 7-8; i.e. “forward the headers to a host for protocol processing.”);
and

f. the TCP driver performing one or more operations that result in a data movement module retrieving that result in a data movement module in a data movement module retrieving one or more payloads of the at least one of the one or more packets from an associated post buffer and placing the one or more corresponding payloads placing the one or more corresponding payloads into a read buffer (Page 3, [0035], lines 8-10; Page 5, [0072], lines 1-3; Page 6, [0091], lines 1-10).

Hendel does not disclose a “TCP-A (transport control protocol - accelerated) driver”; a chipset having a DMA (direct memory access) engine, the chipset communicatively coupled to a TCP-A (Transport Control Protocol - Accelerated).

However, Pettey discloses a “TCP-A (transport control protocol - accelerated) driver” (Page 10, [0089], lines 1-9; i.e. ... “a connection acceleration driver that is connected to a server's TCP/IP stack”); and a chipset having a DMA (direct memory access) engine, the chipset communicatively coupled to a TCP-A (Transport Control Protocol - Accelerated) (Page 10, [0089], lines 1-9; i.e. ... “a connection acceleration driver that is connected to a server's TCP/IP stack”) driver of a processor and to a network component (Page 2, [0016], lines 9-14).

It would have been obvious to a person skilled in the art at the time of the invention to modify the teachings of Hendel with the teachings of Pettey in order to manage the receipt of

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communication traffic from a network or other link by implementing TCP/IP-related processing functions normally attributed to a server, such as accelerating connections to reduce packet processing time through the use of DMA by freeing up system resources.

10. With respect to claim 7, it is rejected for the same reasons as claim 1 above. In addition, Hendel discloses the DMA engine resides on a chipset (Page 2, [0030], lines 1-9; i.e. other input/output interfaces that provide DMA capability may be applied).

11. With respect to claim 8, it is rejected for the same reasons as claim 1 above. In addition Hendel discloses the DMA engine resides on a host processor as a support module (Figure 1, Host 140, RDMA buffer(s) 144; Page 2, [0029], lines 1-5; i.e. each host also includes any number of buffers (144, 154).

12. With respect to claim 9, it is rejected for the same reasons as claim 1 above. In addition Hendel does not disclose receiving a request on an operating system to transmit data over the network; the operating system notifying the TCP-A driver that there is data to be transmitted; the TCP-A driver performing one or more operations that result in the data being transmitted to the network component; in response to receiving the data, the network component creating one or more packets for transmission by packetizing the data; and the network component transmitting the one or more packets over the network.

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However, Pettey discloses receiving a request on an operating system to transmit data over the network (Page 5, [0054], lines 1-18); the operating system notifying the TCP-A driver that there is data to be transmitted (Page 12, [0107], lines 6-12); the TCP-A driver performing one or more operations that result in the data being transmitted to the network component (Page 12, [0105], lines 1-11); in response to receiving the data, the network component creating one or more packets for transmission by packetizing the data (Page 17, [0136] lines 13-30); and the network component transmitting the one or more packets over the network (Page 17, [0136] lines 13-30).

13. With respect to claim 11, it is rejected for the same reasons as claim 10 above. In addition Hendel does not disclose receive a request to transmit data over the network; and notifying the TCP-A driver that data is ready to be transmitted; wherein: the TCP-A driver is capable of performing one or more operations that result in the data being transmitted to the network component; and the network component is capable of: creating one or more packets for transmission by packetizing the data in response to receiving the data; and transmitting the one or more packets over the network.

However, Pettey discloses receive a request to transmit data over the network (Page 5, [0054], lines 1-18); and notifying the TCP-A driver that data is ready to be transmitted (Page 12, [0107], lines 6-12); wherein: the TCP-A driver is capable of performing one or more operations that result in the data being transmitted to the network component (Page 12, [0105], lines 1-11); and the network component is capable of: creating one or more packets for transmission by

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packetizing the data in response to receiving the data (Page 17, [0136] lines 13-30); and transmitting the one or more packets over the network (Page 17, [0136] lines 13-30).

14. With respect to claim 15, it is rejected for the same reasons as claim 14 above. In addition Hendel does not disclose receive a request to transmit data over the network; and notifying the TCP-A driver that data is ready to be transmitted; wherein: the TCP-A driver is capable of performing one or more operations that result in the data being transmitted to a network component; and the network component is capable of: creating one or more packets for transmission by packetizing the data in response to receiving the data; and transmitting the one or more packets over the network.

However, Pettey discloses receiving a request to transmit data over the network (Page 5, [0054], lines 1-18); and notifying the TCP-A driver that data is ready to be transmitted (Page 12, [0107], lines 6-12); wherein: the TCP-A driver is capable of performing one or more operations that result in the data being transmitted to a network component (Page 12, [0105], lines 1-11); and the network component is capable of: creating one or more packets for transmission by packetizing the data in response to receiving the data (Page 17, [0136] lines 13-30); and transmitting the one or more packets over the network (Page 17, [0136] lines 13-30).

15. With respect to claim 24, it is rejected for the same reasons as claim 18 above. In addition, Hendel discloses the DMA engine resides on a chipset (Page 2, [0030], lines 1-9; i.e. other input/output interfaces that provide DMA capability may be applied).

16. With respect to claim 25, it is rejected for the same reasons as claim 18 above. In addition Hendel discloses the DMA engine resides on a host processor as a support module (Figure 1, Host 140, RDMA buffer(s) 144; Page 2, [0029], lines 1-5; i.e. each host also includes any number of buffers (144, 154).

17. With respect to claim 26, it is rejected for the same reasons as claim 18 above. In addition, Hendel does not disclose receiving a request on an operating system to transmit data over the network; the operating system notifying the TCP-A driver that there is data to be transmitted; the TCP-A driver performing one or more operations that result in the data being transmitted to the network component; in response to receiving the data, the network component creating one or more packets for transmission by packetizing the data; and the network component transmitting the one or more packets over the network.

However, Pettey discloses receiving a request on an operating system to transmit data over the network (Page 5, [0054], lines 1-18); the operating system notifying the TCP-A driver that there is data to be transmitted (Page 12, [0107], lines 6-12); the TCP-A driver performing one or more operations that result in the data being transmitted to the network component (Page 12, [0105], lines 1-11); in response to receiving the data, the network component creating one or more packets for transmission by packetizing the data (Page 17, [0136] lines 13-30); and the network component transmitting the one or more packets over the network (Page 17, [0136] lines 13-30).

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18. Claims 4 and 21-22 are rejected as being unpatentable over Hendel et al. (Pub. No US 2004/0013117 A1), hereinafter Hendel in view of Pettey (Pub. No US 2003/0014544 A1) and further in view of Cheriton et al. (Patent No US 6,675,200 B1), hereinafter Cheriton.

19. With respect to claim 4, it rejected for the same reasons as claim 1 above. In addition, neither Hendel nor Pettey discloses operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer comprises sending a request to a data movement module driver to write the one or more corresponding payloads to the read buffer.

However, Cheriton discloses operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer comprises sending a request to a data movement module driver to write the one or more corresponding payloads to the read buffer (Column 8, lines 29-31).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Hendel combined with Pettey, with the teachings of Cheriton in order to achieve faster data movement.

20. With respect to claim 21, it rejected for the same reasons as claim 18 above. In addition, neither Hendel nor Pettey discloses operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer

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comprises sending a request to a data movement module driver to write the one or more corresponding payloads to the read buffer.

However, Cheriton discloses operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer comprises sending a request to a data movement module driver to write the one or more corresponding payloads to the read buffer (Column 8, lines 29-31).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Hendel combined with Pettey, with the teachings of Cheriton in order to achieve faster data movement.

21. With respect to claim 22, it rejected for the same reasons as claim 18 above. In addition, neither Hendel nor Pettey discloses operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer comprises sending a request to a data movement module driver to write the one or more corresponding payloads to the read buffer.

However, Cheriton discloses operations that result in a data movement module placing one or more corresponding payloads of the at least one of the one or more packets into a read buffer comprises sending a request to a data movement module driver to write the one or more corresponding payloads to the read buffer (Column 8, lines 29-31).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Hendel combined with Pettey, with the teachings of Cheriton in order to achieve faster data movement.

22. Claims 3, 13, 17, and 20 are rejected as being unpatentable over Hendel in view of Pettey, and further in view of Seidl et al. (Pub. No US 2003/0217231 A1), hereinafter Seidl.

23. With respect to claims 3, 13, 17, and 20, the combination of Hendel and Pettey discloses wherein the TCP-A driver performs packet processing by processing each of the headers (Hendel, Page 4, [0054], lines 1-6; i.e. the interface may parse any or all of the layer headers).

The combination of Hendel and Pettey does not disclose that the TCP-A driver is additionally capable of fetching a next header of the one or more headers prior to completing the processing of the current header.

However, Seidl discloses that the TCP-A driver is additionally capable of fetching a next header of the one or more headers prior to completing the processing of the current header (Page 1, [0017], lines 1-4; i.e. Note that this may involve prefetching a header...).

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It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Hendel combined with Pettey, with the teachings of Seidl in order to speed up the transfer of data by reducing the time it takes to fetch the data.

Response to Arguments

24. Applicant's arguments filed with RCE on 20 October 2008 have been carefully and respectfully considered in light of the instant amendment, but are still not persuasive.

25. With respect to applicants' argument in the middle of page 11 of the instant arguments, in regards to the combining Pettey and Hendel, which applicant asserts would not have been obvious because such a combination would change a principle of operation of Hendel. The examiner respectfully disagrees and refers applicant to the rejection of claim 1 above. Also in response to applicant's argument that Pettey is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both Hendel and Pettey disclose managing receipt of communication traffic.

26. With respect to applicants' argument in the middle of page 12 of the instant arguments, in which applicant contends that Hendel does not teach posting a header to a post buffer as claimed in amended claim 1. Further, Hendel does not teach posting a payload to a post buffer nor

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retrieving a payload from the post buffer. The examiner respectfully disagrees and refers applicant to the rejection of claim 1 above.

27. With respect to applicants' argument in the middle of page 13 of the instant arguments, in which applicant contends that all independent and dependent claims include amended material, that is not disclosed by neither Hendel nor Pettey, and as such should be allowable. The examiner respectfully disagrees and refers applicant to the rejections of claims 1, 3, 4, 7-11, 13-15, 17, 18, 20-22 and 24-26 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARSHALL MCLEOD whose telephone number is (571)270-3808. The examiner can normally be reached on Monday - Thursday 6:30 a.m-4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marshall McLeod
Art Unit 2457
12/24/2008

/ARIO ETIENNE/
Supervisory Patent Examiner, Art Unit 2457